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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (currently amended). The SUVR method for reducing or substantially eliminating oxides of nitrogen (NO_x) from an effluent gas stream between 300-800°K and that contains oxygen gas (O_2) by reacting NO_x with the amidogen radical (NH_2*) to form to harmless nitrogen gas (N_2) and water vapor (H_2O), the method including the steps:

a) providing a source of ultraviolet radiation with ~~sufficient~~ output between 180 nm and 220 nm ~~and preferably in the range of 193 to 206 nm~~ associated with a duct containing the effluent stream, or streams,

b) mixing ammonia or an ammonia-based reagent with said stream, upstream of said ultraviolet radiation source so that the variance is within +15%/-5% of stoichiometric concentration,

c) causing said ultraviolet radiation source to irradiate the stream with effective wavelength band and intensity flux sufficient to

dissociate the ammonia molecules (NH_3) to the amidogen radicals (NH_2*) and to excite and dissociate NO_x molecules to promote the (NO + NH_2*) to (N_2 + H_2O) reduction reaction[[.]],

d) and controlling the rate of ammonia or ammonia based reagent added to said stream including measuring upstream NO_x and downstream NO_x and/or NH_3 slip.

Claim 2 (currently amended). The method of claim ~~1~~ 3 including controlling the rate of ammonia or ammonia based reagent added to said stream including measuring upstream NO_x and downstream NO_x and/or NH_3 slip.

Claim 3 (currently amended). The SUVR method for reducing or substantially eliminating oxides of nitrogen (NO_x) from an effluent gas stream between 300-800°K and that contains oxygen gas (O_2) by reacting NO_x with the amidogen radical (NH_2*) to form to harmless nitrogen gas (N_2) and water vapor (H_2O), the method including the steps:

a) providing a source of ultraviolet radiation with output between 180 nm and 220 nm associated with a duct containing the effluent stream, or streams,

b) mixing ammonia or an ammonia-based reagent with said stream, upstream of said ultraviolet radiation source so that the variance is within +15%/-5% of stoichiometric concentration,

c) causing said ultraviolet radiation source to irradiate the stream with effective wavelength band and intensity flux sufficient to dissociate the ammonia molecules (NH_3) to the amidogen radicals (NH_2*) and to excite and dissociate NO_x molecules to promote the ($NO + NH_2$*) to ($N_2 + H_2O$) reduction reaction,

d) ~~The method of claim 1~~ and including effecting dissociation of virtually all of the ammonia and producing a purified effluent stream that contains an insignificant amount of residual ammonia.

Claim 4 (currently amended). The SUVR method for reducing or substantially eliminating oxides of nitrogen (NO_x) from an effluent gas stream between 300-800°K and that contains oxygen gas (O_2) by reacting NO_x with the amidogen radical (NH_2*) to form to harmless nitrogen gas (N_2) and water vapor (H_2O), the method including the steps:

a) providing a source of ultraviolet radiation with output between 180 nm and 220 nm associated with a duct containing the effluent stream, or streams,

b) mixing ammonia or an ammonia-based reagent with said stream, upstream of said ultraviolet radiation source so that the variance is within +15%/-5% of stoichiometric concentration,

c) causing said ultraviolet radiation source to irradiate the stream with effective wavelength band and intensity flux sufficient to dissociate the ammonia molecules (NH_3) to the amidogen radicals (NH_2*) and to excite and dissociate NO_x

molecules to promote the (NO + NH_2*) to (N_2 + H_2O) reduction reaction,

d) ~~The method of claim 1~~ and including controlling the volumetric flux of UV radiation in response to measuring/sampling upstream NO_x and downstream NO_x and NH_3 slip and in response to measuring actual UV flux in the reaction zone.

Claim 5 (cancelled).

Claim 6 (original). The method of claim 1 including providing an excimer or ion laser with rasterization of effluent gas with beam or beams in the UV spectrum between 172 nm and 220 nm, and optionally using an ArF laser at 193 nm output as an optimal excimer laser for the SUVR process, with optional laser output in visible or near infrared spectrum, frequency doublers or quadruples being used to reduce the wavelength to the useful UV spectrum.

Claim 7 (cancelled).

Claim 8 (cancelled).

Claim 9 (currently amended). The SUVR method for reducing or substantially eliminating oxides of nitrogen (NO_x) from an effluent gas stream between 300-800°K and that contains oxygen gas (O_2) by reacting NO_x with the amidogen radical (NH_2*) to form to harmless nitrogen gas (N_2) and water vapor (H_2O), the method including the steps:

a) providing a source of ultraviolet radiation with output between 180nm and 220 nm associated with a duct containing the effluent stream, or streams,

b) mixing ammonia or an ammonia-based reagent with said stream, upstream of said ultraviolet radiation source so that the variance is within +15%-5% of stoichiometric concentration,

c) causing said ultraviolet radiation source to irradiate the stream with effective wavelength band and intensity flux sufficient to dissociate the ammonia molecules (NH_3) to the amidogen

radicals (NH_2*) and to excite and dissociate NO_x molecules to promote the ($NO + NH_2*$) to ($N_2 + H_2O$) reduction reaction,

d) ~~The method of claim 1~~ and including employing a two stage retrofit or technology transition system for reducing NO_x levels, where the first stage is a conventional NSCR, SCR or SHR system and the second stage is a SUVR system with ultraviolet elements acting to polish the ammonia and NO_x slip to below 1 ppm.

Claim 10 (currently amended). The SUVR method for reducing or substantially eliminating oxides of nitrogen (NO_x) from an effluent gas stream between 300-800°K and that contains oxygen gas (O_2) by reacting NO_x with the amidogen radical (NH_2*) to form to harmless nitrogen gas (N_2) and water vapor (H_2O), the method including the steps:

a) providing a source of ultraviolet radiation with output between 180 nm and 220 nm

associated with a duct containing the effluent stream, or streams,

b) mixing ammonia or an ammonia-based reagent with said stream, upstream of said ultraviolet radiation source so that the variance is within +15%/-5% of stoichiometric concentration,

c) causing said ultraviolet radiation source to irradiate the stream with effective wavelength band and intensity flux sufficient to dissociate the ammonia molecules (NH_3) to the amidogen radicals (NH_2*) and to excite and dissociate NO_x molecules to promote the ($NO + NH_2$*) to ($N_2 + H_2O$) reduction reaction,

d) ~~The method of claim 1~~ and wherein the radiation source is provided in the form of elongated tubular emitters spaced apart and located in an orientation with respect to the velocity vector of the effluent stream, whereby the pollutant gases flowing around the emitters are treated uniformly and completely.

Claim 11 (cancelled).

Claim 12 (currently amended). The method of claim 1 including employing electrostatic force to reduce or prevent particle buildup on tubular or planer emitter surfaces and to encourage particle collection on an impact shield, the electrostatic force being created by a high frequency, ~~high~~ voltage source connected to the emitter surface while an impact shield is used as the ground plane.

Claim 13 (cancelled).

Claim 14 (currently amended). The SUVR method for reducing or substantially eliminating oxides of nitrogen (NO_x) from an effluent gas stream between 300-800°K and that contains oxygen gas (O_2) by reacting NO_x with the amidogen radical (NH_2*) to form to harmless

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nitrogen gas (N_2) and water vapor (H_2O), the method including the steps:

a) providing a source of ultraviolet radiation with output between 180 nm and 220 nm associated with a duct containing the effluent stream, or streams,

b) mixing ammonia or an ammonia-based reagent with said stream, upstream of said ultraviolet radiation source so that the variance is within +15%/-5% of stoichiometric concentration,

c) causing said ultraviolet radiation source to irradiate the stream with effective wavelength band and intensity flux sufficient to dissociate the ammonia molecules (NH_3) to the amidogen radicals (NH_2*) and to excite and dissociate NO_x molecules to promote the ($NO + NH_2$*) to ($N_2 + H_2O$) reduction reaction,

d) ~~The method of claim 1~~ and wherein a radiation source is provided in the form of one or more LED arrays producing the effective wavelength and intensity of radiation.

Claim 15 (cancelled).

Claim 16 (currently amended). The SUVR method for reducing or substantially eliminating oxides of nitrogen (NO_x) from an effluent gas stream between 300-800°K and that contains oxygen gas (O_2) by reacting NO_x with the amidogen radical (NH_2*) to form to harmless nitrogen gas (N_2) and water vapor (H_2O), the method including the steps:

a) providing a source of ultraviolet radiation with output between 180 nm and 220 nm associated with a duct containing the effluent stream, or streams,

b) mixing ammonia or an ammonia-based reagent with said stream, upstream of said ultraviolet radiation source so that the variance is within +15%/-5% of stoichiometric concentration,

c) causing said ultraviolet radiation source to irradiate the stream with effective wavelength band and intensity flux sufficient to

dissociate the ammonia molecules (NH_3) to the amidogen radicals (NH_2*) and to excite and dissociate NO_x molecules to promote the (NO + NH_2*) to (N_2 + H_2O) reduction reaction,

d) ~~The method of claim 1~~ and wherein the tubular emitters are located around the perimeter of a duct passing said flow stream.

Claim 17 (original). The method of claim 1 wherein an amidogen generator is provided using as an ultraviolet source, a laser with spectrum out put between 172 nm and 220 nm, or a corona discharge using a metal electrode and a dielectric surface or two dielectric surfaces, or a packed dielectric bed discharge, or an electron beam.

Claim 18 (currently amended). The method of controlling the wavelength and the volumetric flux intensity of an SUVR process to reduce or substantially eliminate unburned hydrocarbons or volatile organic compounds, VOC's, ($C_xH_yO_z$) including

carbon monoxide (CO) and halogenated VOC's ($C_xH_y(F,Cl,,Br,I)_z$) from effluent gas streams that contain oxygen gas (O_2) and water vapor (H_2O) by reacting these species with oxygen based radicals (O*, O_2^-, HO_2*, OH*) to form to carbon dioxide (CO_2) and water vapor (H_2O), the method including:

a) providing a source of ultraviolet radiation with ~~sufficient~~ output between 172 nm and 220 nm ~~and preferably in the range of 179 nm to 190 nm~~ associated with a duct containing the effluent stream, or streams,

b) providing a source of electrons with energies of 4 eV or greater, derived from a corona discharge or electron beam,

c) causing said ultraviolet radiation, or electron source, to achieve intensity flux sufficient to dissociate the water molecule (H_2O) and the oxygen molecule (O_2) to oxygen based radicals (O*, O_2^-, HO_2*, OH*) and to excite VOC molecules ($C_xH_yO_z$) to expedite

the oxidation reaction and dissociate halogenated VOC's (F,Cl,,Br,I) to form halogen acids[[.]],

d) and including removing halogen acids (HF, HCl, HBr, or HI) and sulfuric acid (H_2SO_4) generated in the oxidation process down stream by converting them to an ammonium salt or salts, the method using wet or dry electrostatic precipitation, or by absorbing the halogen acid in an aqueous solution containing a base metal (Na, Ca, Mg, K, etc.) or by absorption on a filter impregnated with activated carbon and/or calcium or magnesium oxide.

Claim 19 (cancelled).

Claim 20 (cancelled).

Claim 21 (original). The method of claim 18 including operating a two stage system for reducing high levels of VOC's by factor greater than 100, wherein the first stage includes injection of ozone, or ozonated air, or oxygen based radicals (O*, O_2^-, HO_2*, OH*) from a generator using water vapor and an oxygen source, and the second stage uses ultraviolet radiation or electron source to achieve intensity flux to dissociate the water molecules (H_2O) and the residual oxygen molecules (O_2) to oxygen based radicals (O*, O_2^-, HO_2*, OH*) and to excite remaining VOC molecules ($C_xH_yO_z$) to expedite the oxidation reaction and dissociate halogenated VOC's (F,Cl,,Br,I) to form halogen acids.

Claim 22 (original). The method of claim 18 including controlling the volumetric flux of UV radiation or electron bombardment by measuring/sampling upstream VOC's and downstream oxidation products with mid-infrared spectroscopy or full range UV-B to near

infrared spectroscopy and by measuring actual UV flux in the reaction zone and oxygen and/or water vapor content.

Claim 23 (original). The method of claim 21 including controlling the volumetric concentration of injected oxygen based radicals by measuring/sampling upstream VOC's and downstream oxidation products with mid-infrared spectroscopy or full range UV-B to near infrared spectroscopy and by measuring second stage UV flux in the reaction zone and oxygen and/or water vapor content.

Claim 24 (original). The method of claim 18 wherein the CO or VOC's are controlled in an initial process stage followed by a NO_x reduction stage that includes the injection of ammonia-based reagent, mixing of the reagent in the effluent gas stream and photo-chemical reduction of NO_x.

Claim 25 (currently amended). The method of claim ~~7~~ 24 of a two stage SUVR process whereby the NO_x is controlled and residual ammonia effectively destroyed in an initial process stage followed by a VOC destruction stage to effectively purify the effluent gas stream.

Claim 26 (currently amended). The SUVR method for reducing or substantially eliminating oxides of nitrogen (NO_x) from an effluent gas stream between 300-800°K and that contains oxygen gas (O_2) by reacting NO_x with the amidogen radical (NH_2*) to form to harmless nitrogen gas (N_2) and water vapor (H_2O), the method including the steps:

a) providing a source of ultraviolet radiation with output between 180 nm and 220 nm associated with a duct containing the effluent stream, or streams,

b) mixing ammonia or an ammonia-based reagent with said stream, upstream of said ultraviolet

radiation source so that the variance is within +15%/-5% of stoichiometric concentration,

c) causing said ultraviolet radiation source to irradiate the stream with effective wavelength band and intensity flux sufficient to dissociate the ammonia molecules (NH_3) to the amidogen radicals (NH_2*) and to excite and dissociate NO_x molecules to promote the (NO + NH_2*) to (N_2 + H_2O) reduction reaction,

d) ~~The method of claim 18~~ and including embodying the UV source in a mobile device that is self contained and includes a circulation fan and particulate matter filter, for use in areas where people are present and where the VOC's may present a potential health or safety hazard, and wherein the ultraviolet source optionally has two zones; the first zone for making oxygen based free radicals and ozone, and the second stage for ozone and chlorine gas destruction.

Claim 27 (original). The method of claim 26 including employing a downstream particle filter impregnated with activated carbon and/or calcium oxide to absorb halogen or sulfuric acids.

Claim 28 (cancelled).

Claim 29 (cancelled).

Claim 30 (cancelled).

Claim 31 (currently amended). The method of claim 1 including providing ~~low pressure~~ mercury vapor lamps operating as said source of ultraviolet radiation.

Claim 32 (currently amended). The SUVR method for reducing or substantially eliminating oxides of nitrogen (NO_x) from an effluent gas stream between 300-800°K and that contains oxygen gas (O_2) by reacting NO_x with the amidogen radical (NH_2*) to form to harmless

nitrogen gas (N_2) and water vapor (H_2O), the method including the steps:

a) providing a source of ultraviolet radiation with output between 180 nm and 220 nm associated with a duct containing the effluent stream, or streams,

b) mixing ammonia or an ammonia-based reagent with said stream, upstream of said ultraviolet radiation source so that the variance is within +15%/-5% of stoichiometric concentration,

c) causing said ultraviolet radiation source to irradiate the stream with effective wavelength band and intensity flux sufficient to dissociate the ammonia molecules (NH_3) to the amidogen radicals (NH_2*) and to excite and dissociate NO_x molecules to promote the ($NO + NH_2$*) to ($N_2 + H_2O$) reduction reaction,

d) ~~The method of claim 1~~ including providing an electrostatic precipitator and operating said source of ultraviolet radiation in series with said precipitator.

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Claim 33 (cancelled).

Claim 34 (currently amended). The SUVR method for reducing or substantially eliminating oxides of nitrogen (NO_x) from an effluent gas stream between 300-800°K and that contains oxygen gas (O_2) by reacting NO_x with the amidogen radical (NH_2*) to form to harmless nitrogen gas (N_2) and water vapor (H_2O), the method including the steps:

a) providing a source of ultraviolet radiation with output between 180 nm and 220 nm associated with a duct containing the effluent stream, or streams,

b) mixing ammonia or an ammonia-based reagent with said stream, upstream of said ultraviolet radiation source so that the variance is within +15%/-5% of stoichiometric concentration,

c) causing said ultraviolet radiation source to irradiate the stream with effective wavelength band and intensity flux sufficient to

dissociate the ammonia molecules (NH_3) to the amidogen radicals (NH_2*) and to excite and dissociate NO_x molecules to promote the ($NO + NH_2$*) to ($N_2 + H_2O$) reduction reaction,

d) ~~The method of claim 1~~ and wherein said source of ultraviolet radiation comprises multiple UV bulbs, which are spaced apart in the path of said effluent stream, and providing chevron shaped elements in said path directly upstream of said bulbs to protect the bulbs from erosion from effluent particles impact.

Claim 35 (currently amended). The SUVR method for reducing or substantially eliminating oxides of nitrogen (NO_x) from an effluent gas stream between 300-800°K and that contains oxygen gas (O_2) by reacting NO_x with the amidogen radical (NH_2*) to form to harmless nitrogen gas (N_2) and water vapor (H_2O), the method including the steps:

a) providing a source of ultraviolet radiation with output between 180 nm and 220 nm

associated with a duct containing the effluent stream, or streams,

b) mixing ammonia or an ammonia-based reagent with said stream, upstream of said ultraviolet radiation source so that the variance is within +15%/-5% of stoichiometric concentration,

c) causing said ultraviolet radiation source to irradiate the stream with effective wavelength band and intensity flux sufficient to dissociate the ammonia molecules (NH_3) to the amidogen radicals (NH_2*) and to excite and dissociate NO_x molecules to promote the ($NO + NH_2$*) to ($N_2 + H_2O$) reduction reaction,

d) ~~The method of claim 1~~ and wherein said source of ultraviolet radiation comprises one or more UV bulbs, and including the step of flowing particle free gas adjacent the bulb or bulbs as a protection from erosion due to effluent particle impact.

Claim 36 (currently amended). The SUVR method for reducing or substantially eliminating oxides of nitrogen (NO_x) from an effluent gas stream between 300-800°K and that contains oxygen gas (O_2) by reacting NO_x with the amidogen radical (NH_2*) to form to harmless nitrogen gas (N_2) and water vapor (H_2O), the method including the steps:

a) providing a source of ultraviolet radiation with output between 180 nm and 220 nm associated with a duct containing the effluent stream, or streams,

b) mixing ammonia or an ammonia-based reagent with said stream, upstream of said ultraviolet radiation source so that the variance is within +15%/-5% of stoichiometric concentration,

c) causing said ultraviolet radiation source to irradiate the stream with effective wavelength band and intensity flux sufficient to dissociate the ammonia molecules (NH_3) to the amidogen radicals (NH_2*) and to excite and dissociate NO_x

molecules to promote the (NO + NH_2*) to (N_2 + H_2O) reduction reaction,

d) ~~The method of claim 1~~ including converting ammonia to amidogen radical or radically for injection into the effluent stream.

Claim 37 (original). The method of claim 36 wherein said converting step is one of the following:

i) operation of an ultraviolet lamp,

ii) operation of LEDs,

iii) dielectric barrier discharge between electrodes,

iv) provision and operation of a dielectric pack bed electrode to provide surface area for absorbed ammonia reactions,

v) provision and operation of an electron beam generator to subject ammonia and water to electron beam processing to create amidogen radical and hydrogen gas.

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Claim 38 (cancelled).

Claim 39 (cancelled).

Claim 40 (currently amended). The SUVR method for reducing or substantially eliminating oxides of nitrogen (NO_x) from an effluent gas stream between 300-800°K and that contains oxygen gas (O_2) by reacting NO_x with the amidogen radical (NH_2*) to form to harmless nitrogen gas (N_2) and water vapor (H_2O), the method including the steps:

a) providing a source of ultraviolet radiation with output between 180 nm and 220 nm associated with a duct containing the effluent stream, or streams,

b) mixing ammonia or an ammonia-based reagent with said stream, upstream of said ultraviolet radiation source so that the variance is within +15%/-5% of stoichiometric concentration,

c) causing said ultraviolet radiation source to irradiate the stream with effective wavelength band and intensity flux sufficient to dissociate the ammonia molecules (NH_3) to the amidogen radicals (NH_2*) and to excite and dissociate NO_x molecules to promote the ($NO + NH_2$*) to ($N_2 + H_2O$) reduction reaction,

d) ~~The method of claim 1~~ including providing a combustion process stack, wherein said effluent stream flows, during stream irradiation.

Claim 41 (currently amended). The SUVR method for reducing or substantially eliminating oxides of nitrogen (NO_x) from an effluent gas stream between 300-800°K and that contains oxygen gas (O_2) by reacting NO_x with the amidogen radical (NH_2*) to form to harmless nitrogen gas (N_2) and water vapor (H_2O), the method including the steps:

a) providing a source of ultraviolet radiation with output between 180 nm and 220 nm

associated with a duct containing the effluent stream, or streams,

b) mixing ammonia or an ammonia-based reagent with said stream, upstream of said ultraviolet radiation source so that the variance is within +15%/-5% of stoichiometric concentration,

c) causing said ultraviolet radiation source to irradiate the stream with effective wavelength band and intensity flux sufficient to dissociate the ammonia molecules (NH_3) to the amidogen radicals (NH_2*) and to excite and dissociate NO_x molecules to promote the ($NO + NH_2$*) to ($N_2 + H_2O$) reduction reaction,

d) ~~The method of claim 1~~ including removing one of the following from the effluent stream prior to said irradiation:

x_1) particulate

x_2) aerosols

x_3) VOCs.

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Claim 42 (cancelled).

Claim 43 (cancelled).

Claim 44 (cancelled).

Claim 45 (cancelled).

Claim 46 (cancelled).

Claim 47 (cancelled).

Claim 48 (cancelled).

Claim 49 (cancelled).

Claim 50 (currently amended). The method of claim ~~49~~ 1 wherein the source is provided in the form of elongated, spaced apart irradiation means extending in the duct, and transversely thereof whereby the effluent stream passes over said spaced apart means.

Claim 51 (currently amended). The method of claim ~~49~~ 50 wherein the ~~tubular~~ irradiation means ~~includes~~ include multiple tubes located generally centrally in the duct.

Claim 52 (cancelled).

Claim 53 (cancelled).

Claim 54 (cancelled).

Claim 55 (cancelled).

Claim 56 (cancelled).

Claim 57 (currently amended). Apparatus for reducing or substantially eliminating oxides of nitrogen from a hot effluent gas stream, that comprises:

a) a duct and a source of ultraviolet radiation associated with said duct passing said effluent stream,

b) means for adding ammonia or amidogen radicals to said stream, upstream of said ultraviolet radiation source, and

c) means for controllably operating said ultraviolet radiation source to irradiate said stream flowing in the duct, to effect reduction or substantial elimination of said oxides of nitrogen by promoting, reaction of ammonia with said oxides of nitrogen, to produce N_2 and H_2O flowing in the stream[[.]],

d) and wherein said source of ultraviolet radiation comprises UV emitting means extending in generally clustered relation.

Claim 58 (original). The apparatus of claim 57 wherein said source of ultraviolet radiation comprises UV emitting tubes extending in generally clustered relation.

Claim 59 (original). The apparatus of claim 58 wherein said tubes extend in parallel relation to an X-direction; the tubes being spaced apart in a Y-direction; and the duct extending in a Z-direction, where said directions are the X, Y and Z directions in a rectangular co-ordinate system.

Claim 60 (original). The apparatus of claim 57 wherein said a), b) and c) comprise a first stage apparatus, and also including a second stage apparatus having a'), b') and c'), corresponding to said a), b) and c).

Claim 61 (original). The apparatus of claim 58 wherein said tubes are arrayed in staggered relation presented toward the oncoming stream.

Claim 62 (original). The apparatus of claim 58 wherein the duct is locally enlarged to receive said tubes, for enhanced radiation transmission to the stream.

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Claim 63 (cancelled).

Claim 64 (original). The apparatus of claim 57 wherein said source of amidogen radicals includes steam reforming means.

Claim 65 (original). The apparatus of claim 57 wherein UV generator means is located in the duct to provide about 254 nanometers and about 185 nanometers transverse radiation path lengths relative to the duct wall.

Claim 66 (original). The apparatus of claim 65 wherein the duct wall provides a reflective inner surface for said about 254 nanometer radiation.

Claim 67 (cancelled).

Claim 68 (original). The apparatus of claim 57 wherein said radiation source is one of the following types:

i) UV generator,

ii) LED generator,

iii) dielectric barrier between two electrodes,

iv) dielectric pack electrode means,

v) electron beam.

Claim 69 (currently amended). A method for reducing or substantially eliminating oxides of nitrogen from a hot effluent gas stream, that includes

a) providing a <u>clustered</u> source of ultraviolet radiation less than about 220 nanometers and associated with a duct passing said effluent stream,

b) adding ammonia to said stream, upstream of said ultraviolet radiation source,

c) <u>controlling the rate of ammonia addition to said stream and</u> controllably operating

said ultraviolet radiation source to irradiate said stream flowing in the duct, to effect reduction or substantial elimination of said oxides of nitrogen by promoting reaction of ammonia with said oxides of nitrogen, to produce N_2 and H_2O flowing in the stream.